UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

In Reply Refer to: 3AP20

JUL 19 2017

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Chris Logelin
Environmental Manager
American Zinc Recycling Corporation (fka Horsehead Corporation)
900 Delaware Avenue
Palmerton, Pennsylvania 18071-2008

Dear Mr. Logelin:

Enclosed is the Air Compliance Inspection Report for EPA's March 7-8, 2017 Clean Air Act inspection of the facility formerly known as Horsehead Corporation, now known as American Zinc Recycling Corporation, located in Palmerton, Pennsylvania.

If you have questions or comments regarding this inspection report, please contact Erin Willard of the Office of Air Enforcement and Compliance Assistance at (215) 814-2152.

Sincerely,

Zelma Maldonado
Associate Director
Office of Air Enforcement and Compliance Assistance

cc: Andy Schweitzer, PADEP (electronically)

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Office of Air Enforcement & Compliance Assistance
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

Inspection Date(s):	**March 7 and 8, 2017**
Regulatory Program(s):	**40 C.F.R. Part 81 Designation of Areas for Air Quality Planning Purposes and Title V Permit Program**
Company Name:	**Horsehead Corporation**
Facility Name:	**Palmerton Facility**
Facility Physical Location:	**900 Delaware Avenue Palmerton, Pennsylvania 18071-2008**
Mailing address:	**Same**
County/Parish:	**Carbon County**
Facility Contact:	**Chris Logelin, Environmental Manager, clogelin@horsehead.net, 724-773-2284, (O) 412-742-3948 (C)**
	Ali Alavi, Sr. Vice President – Corporate and Environmental Affairs, aalavi@horsehead.net, 724-773-2212 (O), 412-974-8734 (C)
AFS Number:	**42-025-00103**
Identification/Permit Number:	**FRS #: 110000603749 TV Permit No. 13-00001 (issued March 24, 2014)**

NAICS: 331492 (Secondary Smelting, Refining and Alloying of Nonferrous Metals (Except Copper and Aluminum))
SIC: 3339 (Primary Nonferrous Metals); 3342 (Secondary Nonferrous Metals)

Attendees

Facility Representatives:

Chris Logelin, Environmental Manager

Ali Alavi, Sr. VP – Corporate and Environmental Affairs

Joe Falko, Environmental Manager, 610-737-6857

EPA Staff:

Erin Willard, Environmental Scientist, EPA R3, 215-814-2152

Howard Schmidt, Physical Scientist, EPA R3, 215-814-2133 (March 7 only)

Jim Hagedorn, Environmental Scientist, EPA R3, 215-814-2169

David Dugan, Investigator, EPA National Enforcement and Investigations Center (NEIC), 732-321-4384

State Inspector(s):
Andy Schweitzer, PADEP Air Quality Specialist Supervisor, 610-861-2143
Robert Mullin, PADEP Air Quality Specialist, 610-861-2152

EPA Lead Inspector Signature/Date — for — 7/19/17
Erin Willard — **Date**

EPA Inspector Signature/Date — 7-18-17
Jim Hagedorn — **Date**

Supervisor Signature/Date — 7/19/17
Zelma Maldonado — **Date**

Introduction/Background

On March 2, 2017, Erin Willard notified Horsehead's Chris Logelin that the United States Environmental Protection Agency (EPA) would conduct a Clean Air Act (CAA) inspection of Horsehead Corporation's Palmerton Facility (Horsehead) on March 7 and 8, 2017. As a follow-up to the call, EPA emailed Mr. Logelin a list of documents to compile for EPA's review during the inspection.

The inspection team, including EPA employees Erin Willard, Howard Schmidt, Dave Dugan (EPA NEIC), Jim Hagedorn, and PADEP employees Andy Schweitzer and Robert Mullin. The inspection team convened in the parking lot at Horsehead's Palmerton facility and entered the facility through the guard office as a group. EPA commenced the opening meeting with the Horsehead staff listed above at approximately 9:40am.

EPA explained that the purpose of the inspection was to conduct sampling of the various raw, intermediate and finished materials present at the site, in response to National Ambient Air Quality Standard (NAAQS) exceedances demonstrated by the ambient lead (Pb) monitor located adjacent to the facility. Horsehead personnel indicated they were aware of these exceedances, but had been unable to identify any pattern of operation or facility issues that may have caused them.

EPA outlined the inspection format: an opening meeting that would include a discussion of the current operations at the site, a site tour/sampling collection portion, and a closeout. EPA briefly outlined its Confidential Business Information (CBI) procedures, and indicated that anything Horsehead claimed as CBI would be maintained as such. EPA also indicated it would be taking photographs, and Horsehead would have the opportunity to claim those as CBI as well as data or information collected during the inspection.

EPA requested an overview of the current operations at the site, and also requested clarification on the zinc powder portion of the facility. At the time of the January 2014 EPA CAA inspection, the zinc powder facility was separately permitted under the Zinc Corporation of America name, but has since been included in Horsehead's March 2014 TV Permit. The powder facility receives pure zinc ingots as a raw material/feedstock, which is then melted and atomized in one natural gas fired furnace, and sprayed into a fine zinc powder for use in the battery manufacturing industry.

The Palmerton facility has been in existence since the 1920s and was originally constructed as a primary zinc smelting facility by the New Jersey Zinc Company. At the time of its construction, it received zinc ore from mines in New Jersey by train, and was located in Palmerton rather than in New Jersey due to the close proximity to the anthracite coal fields. Zinc smelting was abandoned at the Palmerton site in 1981, and the facility currently uses rotary kilns to produce two main products, Waelz Oxide (WOX) and zinc calcine. Lead chloride is also produced in the calcine kilns, and this product is currently sold to a lead smelter in China. Iron Rich Material (IRM) is produced in the Waelzing process, and has a small market in the asphalt and cement production industries. IRM is transferred to Stoney Ridge Materials, located adjacent to the facility, for stockpiling and sales. Palmerton employs approximately 160 fulltime employees, and operates on a continuous basis, 24 hours/day, 365 days/year, with very few planned shutdowns. Kiln maintenance is performed on a staggered schedule, so that it is extremely rare for the entire facility to be out of service at the same time. Kilns are rebricked with new refractory in sections during these shutdowns. During regular operations, the

drives that make the kilns rotate are electric. During electric outages or emergencies, the facility has an engine for each kiln that can rotate it very slowly in order to prevent warping that could occur if the kiln cooled in a stationary position.

The raw material used as a feedstock for the kilns is electric arc furnace (EAF) dust, which is also classified as K061 under the Resource Conservation and Recovery Act (RCRA). EAF dust is a byproduct of the EAF steel making process, and is the dust that is generated during the meltdown of an electric arc furnace, when the electric arc created by the electrodes melting scrap metal creates turbulence and kicks dust into the air. Each EAF typically vents to a baghouse, which collects the dust.

EAF dust arrives at Palmerton by truck and train. Personnel were unsure of the number of train cars, but estimated that approximately 30-35 trucks arrive each day. EAF dust is either dumped out of the truck inside Building 608 or pneumatically conveyed out of the train cars and directly into building 608. Trucks physically drive into the building, the building doors are then closed, and then they offload. According to Horsehead representatives, Building 608 is permitted through RCRA as a Hazardous Waste Storage facility. Personnel were unsure of the actual number of EAF dust suppliers; however, they did indicate that they could provide EPA with that information and that there are many suppliers on the East Coast and Canada. Horsehead has one domestic competitor, Zinc Nationale, located in Alabama.

When a truck or train car arrives at Palmerton, samples are taken of each load to characterize the amount of zinc in the EAF dust. The average amount is 20%, but can be as low as 12% and as high as 35%. Horsehead completes a chemical profile of the material generated by each new supplier of EAF dust upon formulating a contract. Shipments of EAF dust are almost always accepted, but on the rare occasion may be turned away for being off specifications or having some other issue. Once the material is unloaded into Building 608, workers try to homogenize the material inside the storage building with heavy equipment, and do not segregate it by supplier in different areas or piles inside the building. Inside Building 608, raw EAF dust is blended with powdered coke (metallurgical or petroleum) and/or powdered anthracite and pressed into pellets. The pelletizing process uses only water and pressure, no heat or other binding chemicals are used. The percent ratio of coke to EAF dust is roughly 25 to 75.

Other facilities owned by Horsehead include: Calumet, IL – EAF dust in Waelzing kilns only; Zochem, Canada – processing facility that does not utilize EAF dust; Rockwood, TN – EAF dust in Waelzing kilns only; Barnwell, SC - EAF dust in Waelzing kilns only; Mooresboro, NC – newly constructed solvent extraction and electrowinning facility currently idled due to operational bottleneck issues; and INMETCO, Ellwood City, Pennsylvania – facility accepts various metal bearing wastes from stainless steel production and battery recycling for nickel, chromium, molybdenum and chromium recovery. Horsehead also previously owned a facility in Monaca, PA that utilized a heat based smelting process that fed calcine and other zinc wastes to make zinc oxide; this facility has been shuttered and demolished. Some of the Waelz oxide produced at all the facilities is sold to a third party; however, most of it is shipped to Palmerton for processing into calcine. All calcine produced at Palmerton is sold to other companies.

The Mooresboro facility was constructed to process zinc calcine using solvent extraction and electrowinning to produce pure zinc (estimated 155,000 tpy finished zinc product capacity). Due to the

issues with the operation of the facility, it was idled, and Horsehead Corporation entered bankruptcy proceedings in February 2016. Personnel indicated that the company is evaluating how it can remedy the issues at the Mooresboro plant, and estimate it will take 1-1.5 years to formulate a solution.

The Palmerton Facility has four rotary kilns, numbered 1 ("swing kiln" can do both Waelzing and calcining), 2 (Waelz only), 5 (technically a swing kiln, but only used for Waelzing), and 6 (dedicated calcine). None of the kilns have a feed rate specified in the permit, and personnel indicated that feed rates on Waelz kilns are dependent upon the zinc content of the EAF feed – the lower the content the higher the feed rate.

Both the Waelz and calcine kilns use the same basic process, which is:

- heat the feed material to a temperature that vaporizes the low boiling point metals (lead, zinc, cadmium, chromium)
- pull those vaporized metals out of the kiln atmosphere
- allow the vaporized metals to oxidize in the ambient air within ductwork connected to the baghouse
- collect oxidized metals in a product collector (baghouse) for packaging and sale (Waelz oxide for the Waelz process and lead chloride from the calcine process)
- Collect the material that travels through the kiln and comes out of the kiln bottom (either the iron rich material (IRM) from the Waelz kilns or zinc calcine in pebble form from the calcine kilns).

For the Waelzing process, each of the Waelz kilns is started and brought up to temperature using natural gas. Once the temperature has reached the oxidation point of the coke/coal content of the EAF pellet feed, the natural gas is cut off and the process utilizes the BTU content of the coke/coal. The Waelz kilns product split is approximately 67% IRM and 33% Waelz Oxide. IRM is a high iron content material that comes out of the bottom of the kiln, where it is quenched with water and then stockpiled in a domed IRM building. Horsehead performs TCLP /LDR analyses on the IRM periodically to ensure the waelzing process is efficient. According to Horsehead representatives, IRM is sold to the cement and asphalt industries as aggregate and as a source of iron necessary for cement manufacturing. Waelz Oxide consists of all the low boiling point metals that vaporize into the kiln during heating (zinc, lead, chromium, cadmium), and the IRM is essentially "everything else" that was present in the EAF dust. WOX is collected in a product collector dedicated to each kiln, each with its own stack. Horsehead uses the term "product collector", however, the units are baghouses that are typically used as an air emission control. The discharge temperature of the Waelz kilns is 900-1100 degrees Celsius. Horsehead personnel were unsure of the sizing of each of the Waelz Oxide product collectors. Waelz oxide is stored in the G and H Buildings, where it is either packaged into supersacks, trucks for sale to third parties, or fed directly into the facility's calcine kilns.

For the calcining process, Waelz oxide is fed into the natural gas fired calcine kilns by a pneumatic system. There are no other additives, and the kilns are fired with natural gas at all times. The discharge temperature of the calcine kilns is 1300 degrees Celsius. The two products of the calcine kilns are lead chloride, which has a Pb concentration of 14-18% and is collected by "product collectors", similar to the WOX collectors. Zinc calcine, which has a zinc concentration of roughly 65% with some other trace heavy metals, comes out of the kiln bottom in pebble form, and is stored in the calcine building before being sold to third parties.

Personnel from Horsehead indicated that the Pb content in EAF dust has been steadily decreasing over time, due to the phasing out of Pb for many uses. Scrap continually has less lead content, therefore the EAF furnace process creates an EAF dust with lower Pb content. The Palmerton facility maintains a small lab to complete metals analysis.

Mr. Alavi offered a very short overview of the powdered metals portion of the facility, indicating that it produces three grades of zinc powder, based on the percent purity of the zinc ingots melted.

At the conclusion of the opening meeting, EPA and Horsehead personnel discussed the sampling procedures and the respirator requirements at the facility. Horsehead indicated that the two sampling inspectors (Jim Hagedorn and David Dugan) would be required to wear a full-face respirator in most of the indoor sampling locations. Horsehead employee Dave Kunkel would accompany the EPA sampling staff in order to collect a split sample. EPA sampling inspectors are respirator fit-tested and provided their own equipment. The inspection team suspended the inspection for off-site lunch from 11:30-12:30pm.

I. Plant Tour/Walkthrough

The inspection team began the site tour at 12:50pm at the truck weigh station, which is also the sampling area for each shipment of EAF dust coming in to the facility. Each shipment (truck or train car) undergoes a radiation detection process, and then a staff member collects 3 samples from each truck or train car. There are approximately 20 suppliers, and each truck weighs roughly 20 tons. These samples are composited into a bucket assigned to each supplier/contract and at the end of the month are sent to the laboratory at the Mooresboro facility for metals analysis, to ensure compliance with each supplier's contract. Due to its high variability of zinc content, one supplier (Butler Works) has an analysis of its EAF dust completed on a daily basis. In addition to these monthly samples, the weigh house also houses a small lab with X-ray fluorescence (XRF) unit that is used for daily production analyses. Samples of product (calcine and Waelz oxide) and Waelz kiln feed is grabbed daily and analyzed for zinc, lead, calcium and iron, with a carbon analysis completed for the coke/coal inputs. None of Horsehead's suppliers have EAF dust with a Pb content that exceeds 10%. In the past, the average Pb content was 7-8% but has been dropping and now averages 3-4%.

The inspection team then drove to Building 608, where trucks were lined up, idling[i], awaiting permission to enter the building to off-load each shipment. The coal and coke storage area is located behind Building 608, and piles of each material were visible on the ground. Building 608 is kept under negative pressure at all times, and has its own baghouse. Pressure drops for this baghouse are recorded daily. When Building 608 is ready to accept a truck, large bay doors open, the truck drives into the building, and then the doors close. The truck dumps its load on the floor inside the building, the truck goes through an indoor truck wash and then exits, empty, on the northern end of building. Water associated with the truck wash is recycled back into the pelletizer, and two outdoor stormwater catch basins discharge to the creek. Ms. Willard, PADEP staff and Mr. Logelin remained outside Building 608 while J. Hagedorn, D. Dugan and Mr. Kunkel went inside Building 608 to collect a sample of the EAF dust.

Upon completion of sampling, the sample team immediately went to the IRM screening area and the Calcine building to collect samples, while the remainder of the inspection team drove to the area located under the kilns, where access to the kiln control room is located. Mr. Logelin parked in the area of the IRM quench stacks, and the inspection team became aware of some black particulate matter falling onto the inspection team while it stood outside viewing the kilns and stacks. EPA and PADEP asked Chris Logelin about it, and he said that Horsehead was aware of this phenomenon, but was never able to pinpoint the source of the dust. Each kiln was operating on the days of the inspection, and were visibly rotating.

In the control room, EPA viewed each operation screen for all 4 kilns, all of which were operating in Waelzing mode. Kiln #6's screen showed that it was the only kiln with the natural gas burner in operation. Kiln feed rates (tons per hour "tph") were displayed as follows:

Kiln #	Set Rate (tph)	Actual Rate (tph)
1	13.2	13.2
2	14.5	11.5
5	18.9	18.1-19.3
6	19.3	Option turned off

Kiln operators indicated that the screens display the kiln feed and other parameters on a continuous basis, and the feed rates are manually recorded once per hour. Operators indicated that the weigh scale system is imprecise, because it weighs each individual pan as it is filled with either Waelz Oxide or EAF Pellet feeds, and then calculates that as total tons per hour. Each pan does not weigh the exact same amount, and operators maintain conversion charts that allow them to use the displayed screen rate to calculate the ton/hr rates to each kiln. The inspection team concluded the tour for the day at approximately 4:15, and left the facility, with the understanding it would return the following day to take samples of soil from the adjacent Superfund facility. After completing the off-site sampling, the inspection team returned to the Palmerton Facility to complete the CAA inspection. Chris Logelin supplied EPA with a spreadsheet showing the breakdown of Waelzing operating hours by kiln. Howard Schmidt took this sheet and the 2016 Pb stack test for Kiln 1 back to the office for input into the Pb modeling analysis.

Day 2 of the inspection began on March 8 at 8:30am. Howard Schmidt and Robert Mullin did not attend the second day. The EPA inspection team met Andy Schweitzer from PADEP, in the parking lot of the former car dealership where the NAAQS monitor is located, and proceeded to drive east on Little Gap Road until the team reached an access point at Stony Ridge Materials. Vehicles were parked immediately adjacent to the current PADEP monitoring station located to the southeast of Stony Ridge materials, at roughly 40.813331, -75.569779. The monitoring team walked along the Aquashicola Creek until it was able to access an area roughly 50 feet beyond a Superfund access gate on the southern bank of the Aquashicola, at the bend of an access road from Horsehead. NEIC inspector Dave Dugan collected a soil sample at this location, with GPS coordinates 40.8111, -75.5721. The inspection team also

collected a soil sample from the Superfund area roughly 100 feet from Little Gap Road at approximately 40.81389, -75.57774.

The team then proceeded to enter the facility at 10:00am, to complete the records review portion of the inspection. Ali Alavi from Horsehead, was not present at the site, but was called to attend the closing conference. Chris Logelin gave EPA a spreadsheet with the hourly calcining operation for each of the calcining kilns. EPA asked for further explanation of the EAF train car unloading process, and Horsehead personnel indicated that trains stop on the tracks adjacent to the truck sampling building, where personnel grab the same samples as for trucks. Each train car is then pneumatically unloaded into Building 608. See the "Records Review" Section below for notes on each of the specific record item.

EPA asked questions regarding the manner in which the kiln operators ensure each kiln is operating in a manner that is most efficient. Mr. Logelin indicated that operators are trained to "watch" various kiln parameters, to optimize the thermal reaction occurring within each; however, he was unable to elaborate on exactly what those parameters are. Mr. Logelin indicated that EAF dust may be stored in Building 608 for weeks, but once it is pelletized, it goes directly into the kilns. There is one pellet feed bin, but each Waelz kiln has a dedicated conveyor.

Horsehead staff indicated that a 2012 PADEP Request For Determination (RFD) was submitted to build up calcine stores in order to feed both the Monaca and Mooresboro facilities. The Monaca facility has been idled and demolished.

II. **Records Review – The documents listed under numbers 1, 4, 5 and 8 below were provided at the time of the inspection. Items in italics are included as notes on documents that were taken away from the facility on March 8, or as reference for materials submitted to EPA on April 21, 2017.**

1. A comprehensive list, including the test date, source, pollutant and results, and accompanying test report for each stack test and baghouse ventilation study completed at the Facility since 1995, on all units, including but not limited to: kilns, baghouses, and product collectors. *Horsehead supplied stack testing via 114 for 2014/2015, and a Pb/CO test on Kiln 1 Waelzing done in March 2016. No other. Horsehead personnel were unsure if there are any ventilation studies or other stack tests in files but will double check.*
    a. *CO test completed for 2017 but Horsehead doesn't have the report back from the testing company.*
    b. For all particulate matter (PM) testing, analyses or calculations demonstrating the metallic content of the total particulate matter. *Ali will check their files to see if there is anything else, but they don't recall seeing anything specific.*

2. A list of each capital project completed at the Facility since 2000 related to maintaining, improving, or changing kiln production rates and/or kiln feed rates, with costs greater than $75,000. For each such capital project, identify the following items: *Horsehead may need more time because this work may be housed within different work groups within the company. Dec 23 2003 is when*

the asset purchase went through, so anything prior to FY 2004 is likely unavailable. Ali Alavi will check and respond back to EPA.

a. Work performed
b. The date completed or projected to be completed,
c. The project work order number
d. The dollar amount approved and expended
e. The projected emission changes (+/-)
f. The expected input or output changes associated with the project, including but not limited to production changes such as feed rate to kilns, feed material(s) to kilns, fuel usage, or outputs from the kiln and product collection baghouses.

3. A list of all maintenance and and/or construction projects completed at the Facility since 1997 on each of the kiln feed conveyors and associated equipment, that cost greater than $75,000. *See #2 above*

4. Each Request for Determination (RFD) submitted to PADEP, with all supporting documentation and associated emissions calculations, since 1997. *Provided. Appears to be no additional info on the kiln feed limits. A. Alavi indicated he checked with attorneys and consultants, so documents provided are an exhaustive list.*

5. For the time period beginning January 2003, provide the following operational information and data for each kiln or kilns, as specified: *Kiln operators have typically been working here for a long time. Each operator is supervised for at least a year until they are allowed to run a kiln on their own. May or may not have an operator's manual or SOP to allow them to teach/learn how to run the kilns and what to look for. Ali said he can take a look to see if there is some documentation that helps the operators optimize the kiln operation.*

a. Daily operational hours, by mode (calcining or waelzing) for each kiln located at the Facility. *Kiln data is by monthly basis and input in to the AIMS program so Horsehead can look that up. Daily hours are available, so that info can be pulled out for days the monitor ran, by kiln. Waelzing feed rates are highly variable and dependent upon the carbon content, the zinc content etc. They do have a max feed rate that would be detrimental to exceed for the Zn reduction process.*

b. 12-month rolling sum and annual sum of operational hours for each kiln. Include emissions calculations for Kiln 1 based on the operating hours. *Provided Waelzing hours and pollutant values. C. Logelin indicated he can put together calcining hours for the years he has been at Horsehead, 2015 and 2016. Howard took this info to input in to the model. Calcining hours provided on March 8.*

c. Hourly and daily kiln feed rates for each kiln, by raw material feed. If the feed material is comprised of more than one raw material, include the

percent (%) total of each raw material. *Horsehead has this but did not provide, they don't base operation on the feed rate.*

d. Production tonnage for each kiln, by mode, on a daily basis. *They do keep this info, but did not provide it. AS400 data management program tracks everything in and production out, so would have to pull it out of the system.*

6. Provide chemical analyses of feed materials to each kiln, as used to control the chemistry of the feed materials for the kiln, to assist in controlling emissions. *Are monthly composite samples or daily XRF samples as completed by Horsehead lab available? EPA indicated it would be helpful to demonstrate that the Pb values in the EAF dust have been decreasing over time.*
   a. *Kept on a monthly basis for each supplier, lead, zinc, cadmium, carbon and chromium.*
   b. *Unsure how sampler completes the kiln feed QA/QC samples.*

7. Monthly amounts of EAF dust (K061) received at the Palmerton facility, and monthly product, or coproduct shipped (*Manifests with amounts of EAF dust are sent to PADEP on a quarterly basis) Horsehead will review that data system to see if they can generate electronic versions for EPA.* Include amounts shipped for lead concentrate, zinc calcine, Waelz oxide and iron-rich material (IRM). *Not provided during inspection but personnel should be possible to compiled based on # trucks or traincars in.*

8. 2016 AIMS data, as submitted to PADEP *Yes, completed electronically and provided EPA a paper copy*

III. Closing Conference

During the closing conference, EPA and Horsehead staff reviewed the records list again, and Horsehead indicated it would make every effort to locate documents responsive to the records list; however, Mr. Alavi stated that records prior to 2004 would likely be unavailable due to corporate structure changes. EPA said it would email Mr. Alavi on March 17, 2017 to check in on the progress of compiling the remaining records. EPA outlined the inspection report procedures, and Ali Alavi indicated that if any photos contain CBI, he would notify EPA at the time the report was received.

IV. Areas of Concern

There were no immediate areas of concern noted, other than to reiterate the purpose of this inspection, which was to complete sampling in order to further investigate NAAQS exceedances, as found at the NAAQS monitor sited on Little Gap Road.

List of Attachments:

EPA Photos and Log

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[1] Andy Schweitzer, of the PADEP, noted that there were no posted placards for limiting idling, and mentioned PA's anti-idling rules to Mr. Logelin.

Photo Log – Horsehead Corporation, Palmerton PA

March 6-7, 2017 CAA Inspection

1. EAF Pneumatic Unloading
2. Bldg 608 Truck Entrance
3. Quench Towers/IRM Dome
4. Kiln Stacks, L to R: Kiln 6 Stack, Kiln 1 Product Collector, Kiln 1 Stack, F1 or F2 Fugitive Stack (baghouse)
5. IRM Quenching for Kiln 6
6. Control Room Screen for Kilns 1, 2, and 5
7. Control Room Screen for Kiln 6
8. Control Room Screen for Kiln 2 & 5 Baghouse Controls
9. Control Room Screen for Kiln 1
10. Control Room Screen for Kiln 6
11. Kiln 5 from Control Room
12. Overview of Facility with Lead Chloride Facility on Right
13. Superfund Sign at soil sample location
14. Soil Sample
15. Overview of Facility from Stoney Ridge
16. Overview of Facility from Stoney Ridge
17. Overview of Facility from Stoney Ridge
18. Overview of Facility from Stoney Ridge

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Photo 1 - EAF Pneumatic Unloading

Photo 2 - Bldg 608 Truck Entrance

EPA CAA Inspection – March 7-8, 2017 - Horsehead Corporation, Palmerton, PA

Photo 3 – Quench towers with IRM dome in background

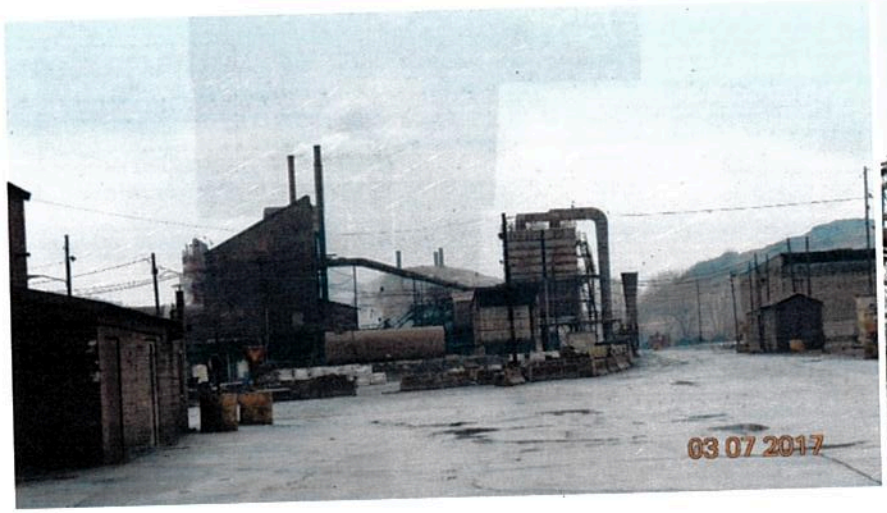
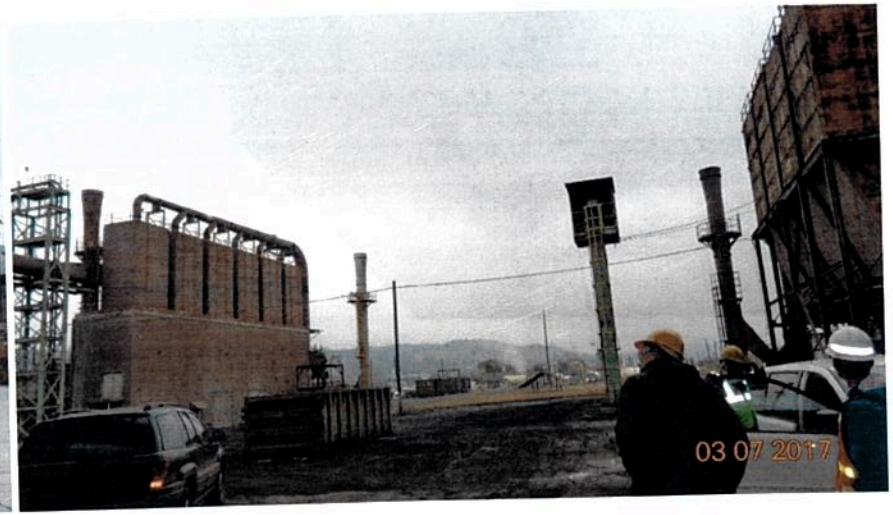


Photo 4 – Facility stacks, L to R: Kiln 6 stack, Kiln 1 Product Collector, Kiln 1 Stack, F1 or F2 Fugitive Stack (baghouse)



EPA CAA Inspection – March 7-8, 2017 - Horsehead Corporation, Palmerton, PA

Photo 5 – Kiln 6 IRM Quenching building

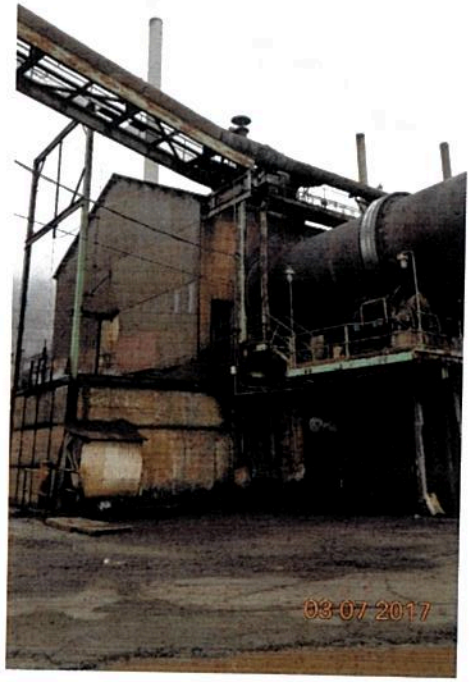
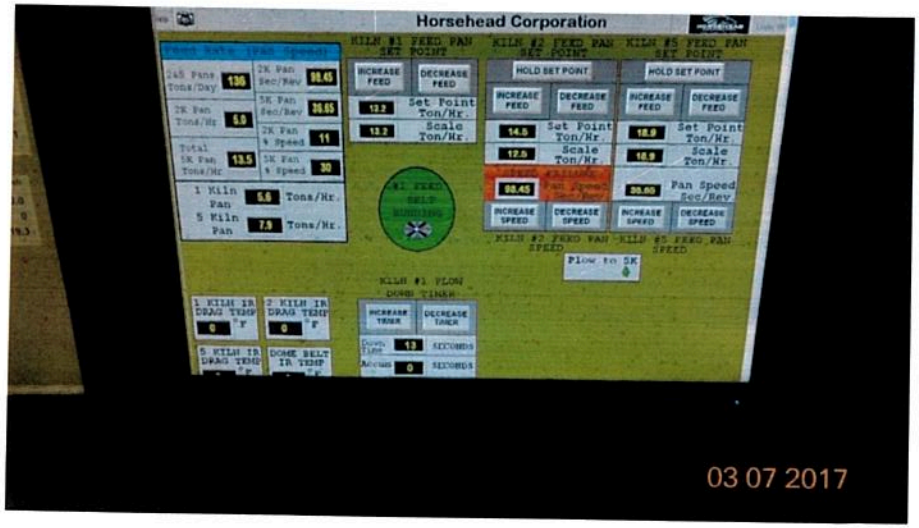


Photo 6 – Control Room Screen for Kilns 1, 2, and 5



EPA CAA Inspection – March 7-8, 2017 - Horsehead Corporation, Palmerton, PA

Photo 7 – Control Room Screen for Kiln 6

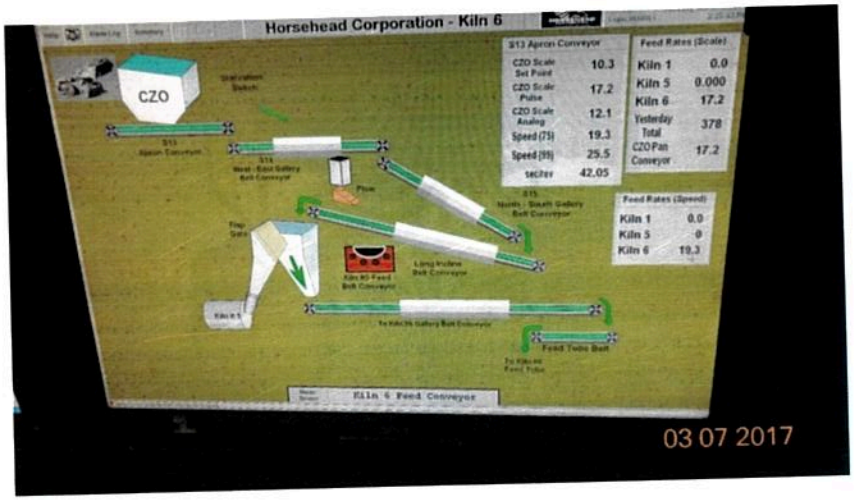
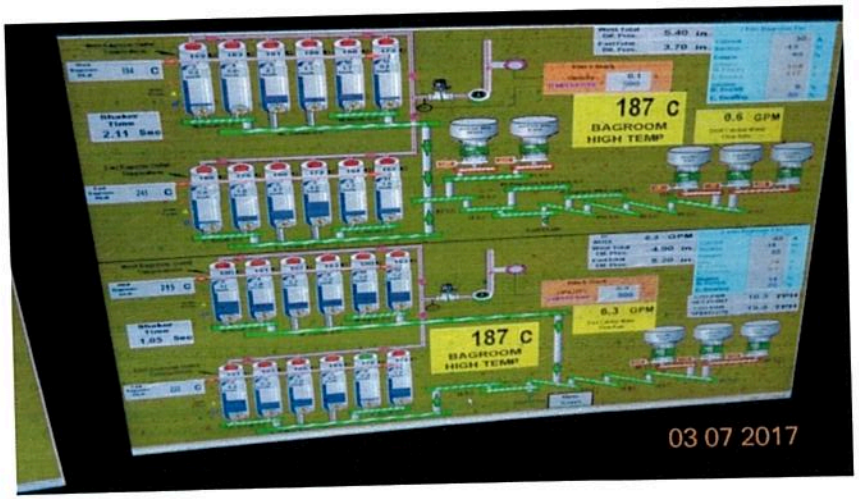


Photo 8 – Control Room Screen for Kiln 2&5 Baghouse Controls



EPA CAA Inspection – March 7-8, 2017 - Horsehead Corporation, Palmerton, PA

Photo 9 – Control Room Screen Kiln 1 Baghouse

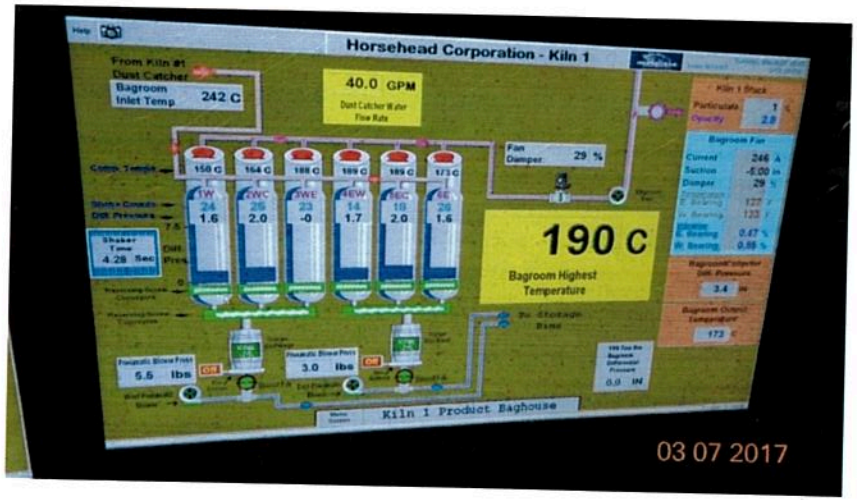


Photo 10 – Control Room Screen Kiln 6 Baghouse

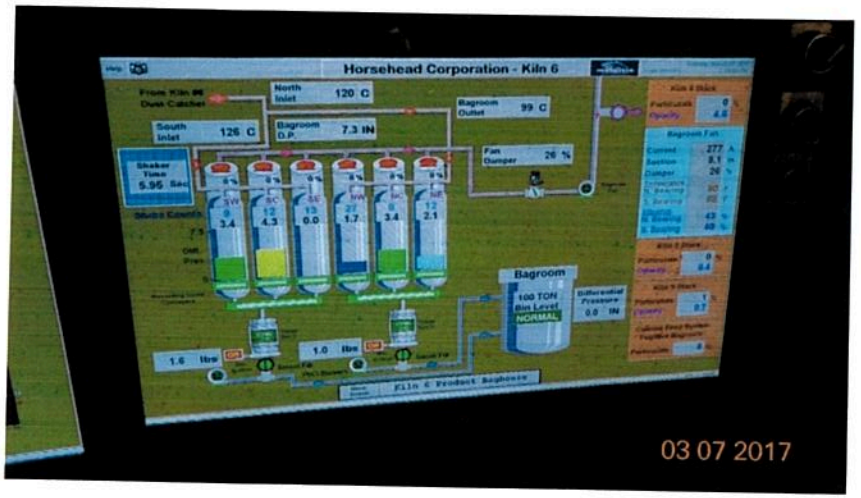


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Photo 11 – View of Kiln 5 from Control Room

Photo 12 – Overview of Facility, Lead Chloride Packing Building on Right

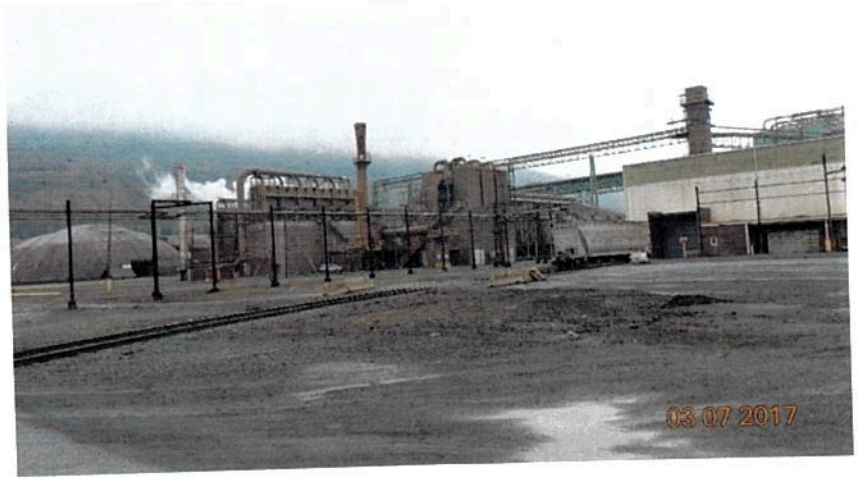

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Photo 13 – Superfund Signage on Gate adjacent to soil sample collection site

Photo 14 – Soil Sample

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Photo 15 – Facility as viewed from Stoney Ridge

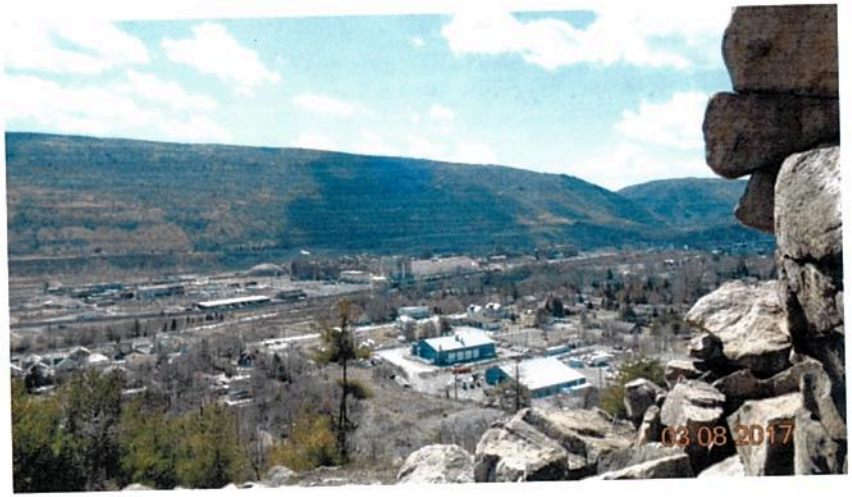

Photo 16 - Facility as viewed from Stoney Ridge

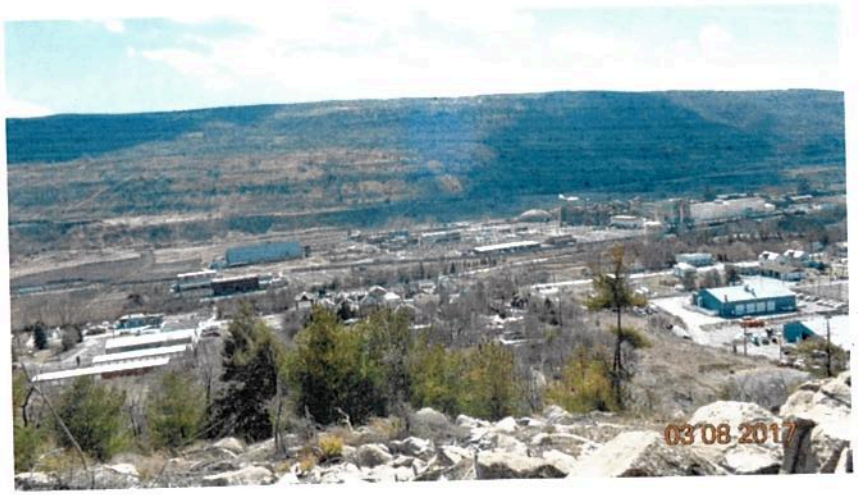

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Photo 17 - Facility as viewed from Stoney Ridge

Photo 18 - Facility as viewed from Stoney Ridge